



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/708,879

03/30/2004

Bin Wei

129545-1

2878

6147 7590 06/27/2007
GENERAL ELECTRIC COMPANY
GLOBAL RESEARCH
PATENT DOCKET RM. BLDG. K1-4A59
NISKAYUNA, NY 12309

EXAMINER

POPOVICS, ROBERT J

ART UNIT

PAPER NUMBER

1724

MAIL DATE

DELIVERY MODE

06/27/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/708,879

Applicant(s)

WEI ET AL.

Examiner

Robert J. Popovics

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on June 14, 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-13 and 15-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-13 and 15-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

Claims 1,3-13 and 15-24 are rejected under 35 U.S.C. 103 as being obvious over the combined teachings of **Suzuki (US 5,221,467)** and **Corcelle (US 5,071,567)**. See Figures 4(a), 7(a), 8(a) and 15(a) each of which illustrates two stage filtration in an EDM:

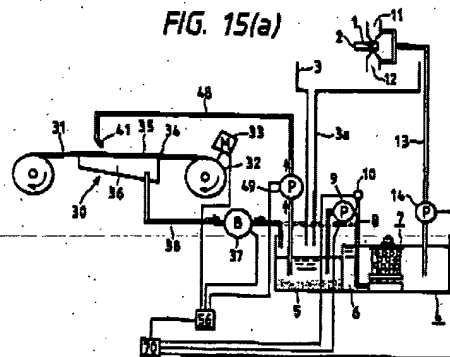
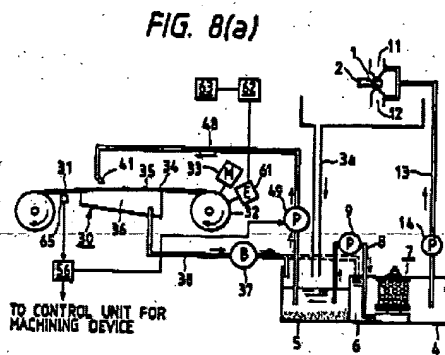
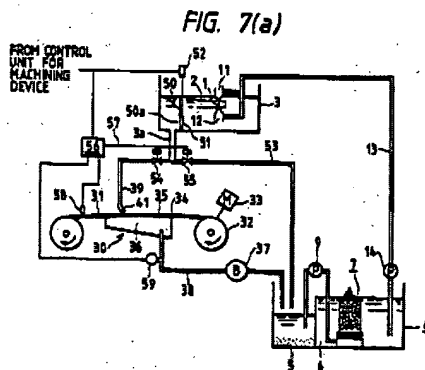
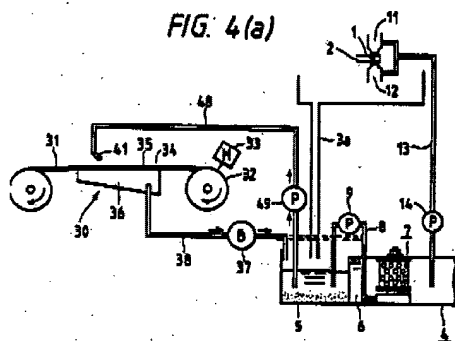
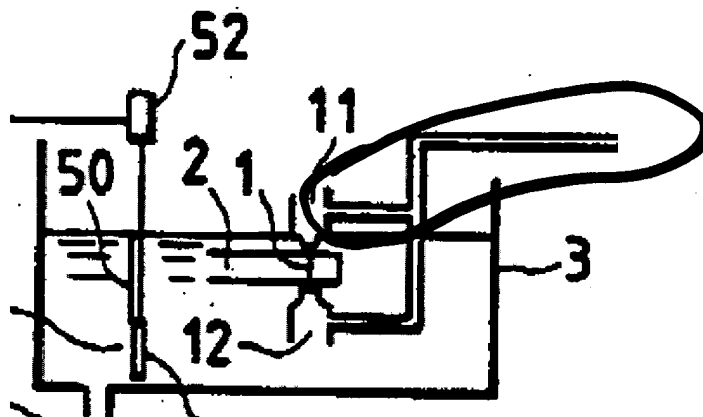
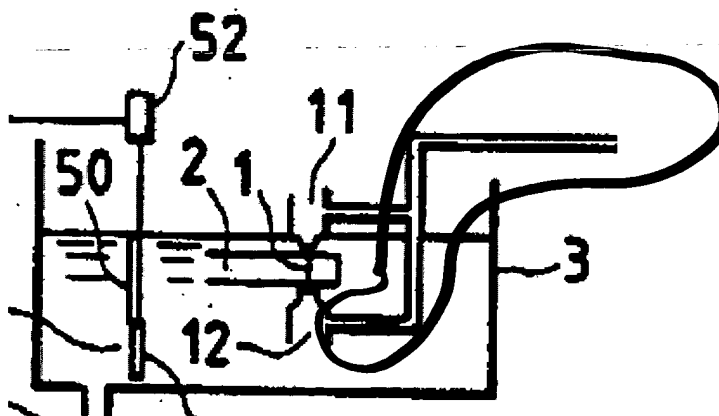


FIG. 7(a)



"First Path"

FIG. 7(a)



"Second Path"

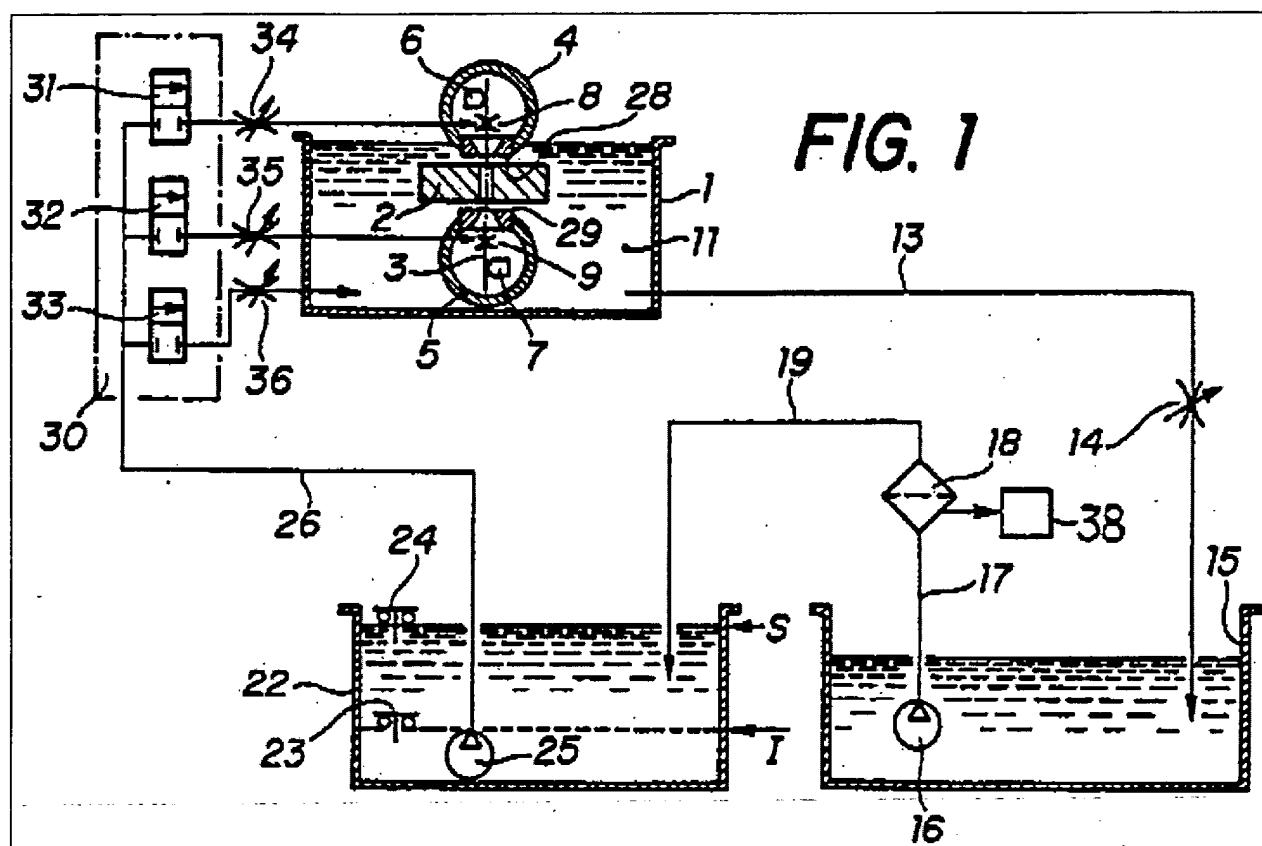
Art Unit: 1724

The claims essentially differ from **Suzuki** by specifying a liquid adding inlet *"directly connected to said work tank."* **Corcelle** discloses a return line directly connected to said work tank as depicted in Fig. 1 of **Corcelle**:

U.S. Patent

Dec. 10, 1991

5,071,567



It would have been obvious to one skilled in the art to directly connect the inlet/line of **Suzuki** in view of the clear teaching of **Corcelle**. It is noted that the use of "guides" as recited in claims 5,11,12,17,23 and 24, is well known in the art. It is submitted that the use of a guide in the system of Suzuki would be inherent. Alternatively, it is submitted that the use of a guide in the system of Suzuki would have been obvious by virtue of the well known status of guides.

Claim Rejections - 35 USC § 103

Claims **1,3-13** and **15-24** are ***alternatively*** rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of **Suzuki (US 5,221,467)** and **Hosaka (US 6,533,927)** and **Corcelle (US 5,071,567)**. Hosaka discloses guide 13. The use of a guide in the system of Suzuki would have been obvious in view of the teachings of Hosaka. **Corcelle** discloses a return line directly connected to said work tank as depicted in Fig. 1 of **Corcelle**. It would have been obvious to one skilled in the art to directly connect the inlet/line of Suzuki in view of the clear teaching of Corcelle

The additional subject matter of claims **4,6,9,16** and **18** merely recite features which are conventional, or would have been readily apparent to those skilled in the art. It is noted that the use of sloped tank bottoms to direct accumulated debris is notoriously well known in the art. It is known that the use of control systems employing pressure sensors at various points in a system is notoriously well known in the art. The use of additional pumps and flowpath configurations would have been readily apparent to those skilled in the art for various reasons, including, but not limited to, reducing the size of the pump and/or piping, avoiding points of stagnation in either tanks, using materials on hand (as opposed to buying), redundancy, to permit cycling and/or maintenance of the pumps/lines, etc. Accordingly, claims **4,6,9,16,18** and **21** are not seen to patentably distinguish over the combined teachings of **Suzuki (US 5,221,467)** and **Hosaka (US 6,533,927)** and **Corcelle (US 5,071,567)**.

Response to Arguments

Applicant's arguments filed **June 14, 2007** have been fully considered but they are not persuasive.

Applicants argue:

However,
there is no teaching or suggestion in Suzuki to provide a return path through a liquid adding inlet directly connected to the work tank, as recited in amended Claims 1 and 13. Thus, the Suzuki reference does not anticipate or render obvious the claimed invention, and the rejection is misplaced.

It is submitted that this argument is rendered moot by virtue of the art rejections set forth above.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on **June 14, 2007** has been entered.

Any inquiry concerning this communication should be directed to Robert J. Popovics at telephone number (571) 272-1164.



Robert James Popovics
Primary Examiner
Art Unit 1724

